

APPENDIX 3 – ANALYTICAL BALANCES		Page 1 of 1
Division of Forensic Science TRACE EVIDENCE PROCEDURES MANUAL		Amendment Designator:
		Effective Date: 31-March-2003
ANALYTICAL BALANCES		
A.	The calibration of all balances in the Trace Evidence Section is checked monthly. The calibration is performed using at least Class 1 weights (20.000g, 1.000g and 0.005g) and is dependent upon the maximum weighing capacity of the balance. The tolerances for these weights are:	
	20 g ± 0.1	(19.9 - 20.1)
	1.0 g ± 0.01	(0.99 - 1.01)
	0.005 g ± 0.001	(0.004 – 0.006)
	a. The calibration check data is recorded on the “Analytical Balance QC Sheet” (Appendix 19) and is kept with each balance. The person performing the calibration check shall initial and date the form.	
	b. If the recorded weight is outside of the acceptable range, check that the balance is level and free of debris, and recalibrate the balance a second time before making a service call.	
	c. Instead of being sent out for recertification, on an annual basis, the weights used for the monthly calibration check may be checked against another Section’s currently certified weight set. Record this check, including the identifying information for the certified weight set used, on the “Analytical Balance QC Sheet”.	
	d. Alternatively, the weights used for the monthly calibration may be checked immediately after the annual service check with the values recorded on the “Analytical Balance QC Sheet”.	
	e. On an annual basis, these “new” values, plus and minus the tolerances, become the new acceptance range for the year.	
B.	All balances are cleaned, serviced and calibrated annually by an outside vendor. Record the service call on the “Analytical Balance QC Sheet” that is kept with each balance.	
C.	Service receipts and miscellaneous balance maintenance comments are recorded on the “Analytical Balance QC Sheet” that is kept with each balance.	
D.	An examiner may use a calibrated balance from another Section in the Division. The examiner’s case notes will reflect the identification of the balance and its location, for example: Drug Section, Sartorius, DFS XXX.	
E.	When reporting weights in a Certificate of Analysis or for any other “official” purpose, the examiner will truncate to at least the last decimal place. Weights will not be rounded.	
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